

WHAT IS CLAIMED IS:

1. A surface acoustic wave device comprising:

a piezoelectric substrate;

a plurality of interdigital electrodes for converting an input signal to a surface acoustic wave to be output, the plurality of interdigital electrodes being arranged on the piezoelectric substrate in a surface acoustic wave propagation direction;

a plurality of terminals provided on the piezoelectric substrate and arranged to transmit signals, including signal terminals for transmitting balanced-signals;

a plurality of signal lines provided on the piezoelectric substrate and arranged to connect the signal terminals and the interdigital electrodes to each other; and

a ground line provided on the piezoelectric substrate between one of the plurality of signal terminals and an adjacent one of the plurality of signal lines.

2. A surface acoustic wave device according to claim 1, wherein the ground line is arranged to surround one of the plurality of signal lines that has a pad shape.

3. A surface acoustic wave device according to claim 1, wherein a surface acoustic wave resonator is connected to

one of the interdigital electrodes and is disposed on the piezoelectric substrate.

4. A surface acoustic wave device according to claim 1, wherein the device has a balance-unbalance conversion function.

5. A surface acoustic wave device according to claim 1, wherein the number of electrode fingers of the interdigital electrode connected to the signal terminals for transmitting balanced signals is even.

6. A communication device comprising at least one surface acoustic wave device according to claim 1.

7. A surface acoustic wave device comprising:

a piezoelectric substrate;

a plurality of interdigital electrodes for converting an input signal to a surface acoustic wave to be output, the plurality of interdigital electrodes being arranged on the piezoelectric substrate in a surface acoustic wave propagation direction;

a plurality of terminals provided on the piezoelectric substrate and arranged to transmit signals, including signal terminals for transmitting balanced-signals;

a plurality of signal lines provided on the piezoelectric substrate and arranged to connect the signal terminals and the interdigital electrodes to each other; and

a ground electrode finger provided in an outermost portion of at least one of two adjacent interdigital electrodes which is opposed to that of the other of the two adjacent interdigital electrodes in such a manner that a tip of a ground electrode finger extends further in the interdigitation-span direction compared to the other electrode fingers of the one of two adjacent interdigital electrodes.

8. A surface acoustic wave device according to claim 7, wherein a surface acoustic wave resonator is connected to one of the interdigital electrodes and is disposed on the piezoelectric substrate.

9. A surface acoustic wave device according to claim 7, wherein the device has a balance-unbalance conversion function.

10. A surface acoustic wave device according to claim 7, wherein the number of electrode fingers of the interdigital electrode connected to the signal terminals for transmitting balanced signals is even.

11. A communication device comprising at least one surface acoustic wave device according to claim 7.

12. A surface acoustic wave device comprising:
a piezoelectric substrate;

a plurality of interdigital electrodes for converting an input signal to a surface acoustic wave to be output, the plurality of interdigital electrodes being arranged on the piezoelectric substrate in a surface acoustic wave propagation direction;

a plurality of terminals provided on the piezoelectric substrate and arranged to transmit signals, including signal terminals for transmitting balanced-signals;

a plurality of signal lines provided on the piezoelectric substrate and arranged to connect the signal terminals and the interdigital electrodes to each other; and

a first of the interdigital electrodes that is connected to one of the plurality of signal lines and a second of the interdigital electrodes that is adjacent to the first of the interdigital electrodes being formed in such a manner that the widths of bus bars of the first and second interdigital electrodes are decreased such that opposing portions of the first and second interdigital electrodes are reduced in size as compared to the remaining

ones of the interdigital electrodes.

13. A surface acoustic wave device according to claim 12, wherein a surface acoustic wave resonator is connected to one of the interdigital electrodes and is disposed on the piezoelectric substrate.

14. A surface acoustic wave device according to claim 12, wherein the device has a balance-unbalance conversion function.

15. A surface acoustic wave device according to claim 12, wherein the number of electrode fingers of the interdigital electrode connected to the signal terminals for transmitting balanced signals is even.

16. A communication device comprising at least one surface acoustic wave device according to claim 12.

17. A surface acoustic wave device comprising:
a piezoelectric substrate;

a plurality of interdigital electrodes for converting an input signal to a surface acoustic wave to be output, the plurality of interdigital electrodes being arranged on the piezoelectric substrate in a surface acoustic wave

propagation direction;

a plurality of terminals arranged on the piezoelectric substrate to transmit signals including two signal terminals for transmitting balanced-signals and one terminal for transmitting an unbalanced-signal;

a signal line arranged on the piezoelectric substrate so as to connect said one terminal for transmitting an unbalanced-signal and the interdigital electrodes to each other; and

a ground line arranged on the piezoelectric substrate between at least one of the two terminals for transmitting balanced-signals and the signal line that is adjacent thereto.

18. A surface acoustic wave device according to claim 17, wherein a surface acoustic wave resonator is connected to one of the interdigital electrodes and is disposed on the piezoelectric substrate.

19. A surface acoustic wave device according to claim 17, wherein the device has a balance-unbalance conversion function.

20. A surface acoustic wave device according to claim 17, wherein the number of electrode fingers of the

interdigital electrode connected to the two signal terminals for transmitting balanced signals is even.

21. A communication device comprising at least one surface acoustic wave device according to claim 17.

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